

## VI DESIGN ALTERNATIVES

### Design Alternative Process

Part of the design process for this senior center involves identifying and assessing development alternatives to meet the needs of the town's growing senior population. Several approaches were discussed during meetings, and solutions included:

1. Addition to the existing building which includes two alternative two-story above grade plans with the use of the basement for program space and a three-story above grade plan.
2. Demolition of the existing building and construction of a completely new Senior Center on the same site.
3. Obtaining a new site with fewer constraints for the Senior Center.

**Alternative 1a and 1b- Two Levels Above Grade Addition plus Basement**

These alternatives align the new basement, first and second floors with the existing floor levels, requiring one new egress stair (see Figure 6.2 for conceptual section). The grade at the main entrance is brought to first floor level. (The primary difference between these 1a and 1b is the position of the multipurpose room).

*Advantages*

- Main entry at grade and first floor level (eliminates mid-level entry).
- Addition floor levels align with existing.
- Handicap parking adjacent to building instead of across access drive.
- Main function space and lounge space centered around entrance and entrance lobby.
- Ability to use existing elevator in its current location.
- Build-out of full basement provides future expansion space within new footprint.

*Disadvantages*

- Reception desk is separated from other offices.
- Site constraints restrict future footprint expansion of the facility.

Additional merits/drawbacks that are particular to either 1a or 1b are listed below.

**Alternative 1a**

Preferred alternative for this study

*Advantages*

- Long side of multipurpose room opens up to a south facing outdoor living space, offering both portions of the room access and views outside.

- Shorter and more flowing corridors for ease of travel.
- Connections maintained between the new entry and the main lobby space.
- 1-1/2 story multipurpose room for proper spatial proportions.

**Alternative 1b**

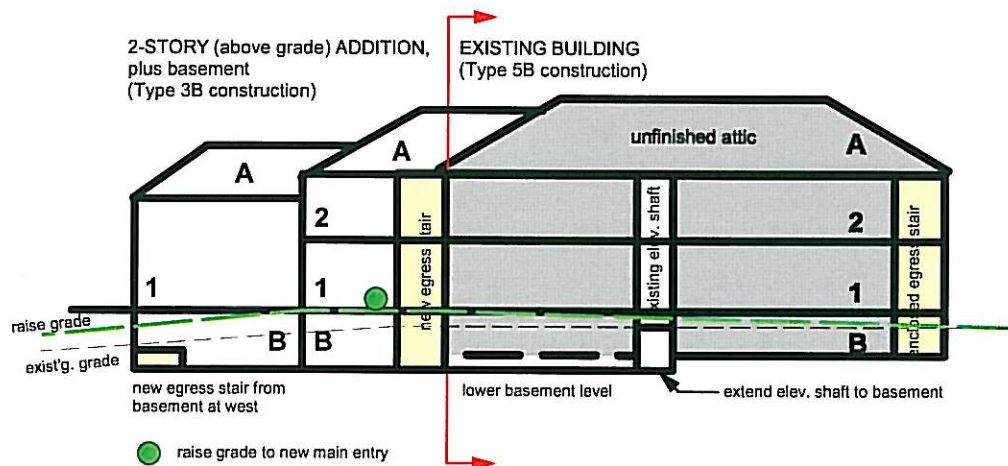
This alternative is very similar to 1a but with a different addition layout. While the main entrance is in the same location, the shape of the lobby and multipurpose room are shifted.

*Disadvantages*

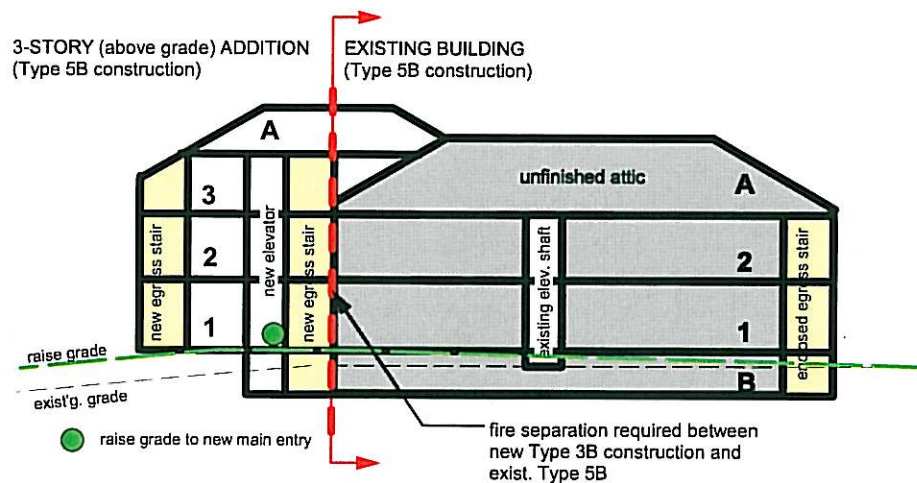
- Portion of multipurpose room is “landlocked” without exterior exposure – no views.
- Disjointed hallways can disrupt ease of wayfinding.
- Irregular shaped multipurpose rooms are less practical function spaces.



Figure 6.1 Alternatives 1a and 1b Preliminary Layout Comparison



## Alternatives 1a & 1b (Two Story Addition)



## Alternative 1c (Three Story Addition)

# CONCEPTUAL SECTIONS

**Catlin**Architecture  
www.catlinarchitecture.com 617-770-2440

CAMERON SENIOR CENTER FEASIBILITY STUDY, Westford, Mass.  
*Conceptual Sections*

Figure 6.2 Conceptual Sections

### **Alternative 1c- Three Level Above Grade Addition**

The main objective behind this alternative is having a smaller overall addition footprint and taking it up to a third story. Program space would be concentrated to a smaller area, but vertical circulation would be extended one story. The site strategies would be similar to 1a and 1b (see Figure 6.2 for conceptual section).

#### *Advantages*

- Could potentially reduce footprint of addition for same amount of program
- Exterior exposure of new third floor addition (with windows) vs. program space in basement (with limited windows).

#### *Disadvantages*

- There is currently no third floor programming in the existing building (attic).
- A new elevator location would be required for access to third floor.
- The third floor would require two means of egress. By keeping the addition to two levels, only one new fire stair would need to be added. A second new stair would use some of the program space that was gained.
- Wood frame Type 5B construction for A3 use buildings has a height limitation of 2 stories and/or 40 feet maximum above grade level. A third story would require a construction Type change of the addition to Type 3B, which would add cost to the project.
- A fire separation would be required between the existing building (Type 5B) and addition (Type 3B) which could also add cost.
- A third story might exceed height limitations of town zoning bylaws

and would potentially change the character of the building, compromising its architectural relationship with the surrounding context.

### **Alternative 2- Raze Existing Building and Build a New Facility Closer to Pond**

Another idea for this site is to tear down the Cameron School building and build a new Senior Center Facility on the site. Renovated buildings are a less efficient use of space and older buildings have a higher energy costs. A new smaller building would meet the needs of the elders and provide opportunity for future expansion. Furthermore, new construction is more energy efficient and would reduce operational costs. An initial concept would be to build on the conservation land which would add planning flexibility, but this is evidently not legally feasible due to land use restrictions. Therefore, new construction would be limited to the same parcel the current building sits on. The program space could be arranged more efficiently in a new building, and its building footprint would be much smaller than in 1a or 1b. However, future expansion would still be limited. Also, since this building is a contributing building to a local historic district, there would be significant opposition to its destruction.

This alternative was rejected.

### **Alternative 3- Abandon Existing Site and Build New 15,000sf Facility**

A final alternative would be to find a new site on which to build a new facility. This could be an opportunity to create a facility that meets the needs of the senior community in a more efficient and effective manner. Renovated buildings are a less efficient use of space and older buildings have a higher energy costs. A new smaller building would meet the needs of the elders and provide opportunity for future expansion, including the location of an adult social day center on the site. Furthermore, new construction would be more energy efficient and would reduce operational costs.

#### *Opportunity*

Should the Senior Center be relocated, there are other town departments that could use the Cameron School building. (Regardless of occupant type, the building requires sprinklering per Chapter 148 Section 26G.)

#### *Costs*

##### *On Town Owned Land*

15,000sf x \*\$250/sf = \$3,750,000

\*(Assuming reasonable site development costs.)

(Soft costs at 18% would be in addition to this figure.)

##### *Purchased Land*

If the town needs to acquire land, new construction costs would be the same as above, but it does not include the cost of obtaining the land. Land costs vary and cannot be factored into the cost without having specific parcels in mind.